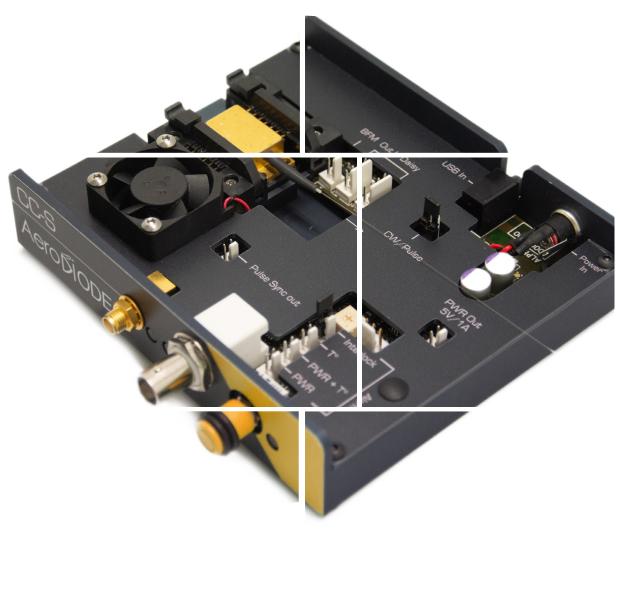
# Laser diodes & Turnkey solutions from 1270 to 1650 nm



# Aero

www.aerodiode.com

# Choose your own fiber-coupled DFB laser diode + turn-key driver solution from 1270 to 1650 nm

Standard singlemode DFB or Bragg laser diodes from 10 to 400 mW are offered as stock items or associated with a CW or nanosecond pulsed turn-key driver.

| 1st<br>Choose your laser diode : |               |                           |  |   |                                      |                                |  |
|----------------------------------|---------------|---------------------------|--|---|--------------------------------------|--------------------------------|--|
| Diode<br>type                    | Power<br>(CW) | Power<br>(Pulse)<br>(typ) | Technology                                     | Wavelength<br>(nm)                            | Fiber                                | Emisison<br>Bandwidth<br>(typ) | Package (mm)   |
| 1                                | 10 mW         | 20 mW                     |  | Any wavelength<br>between 1270 and<br>1650 nm | SMF or PM<br>versions avai-<br>lable | << 0.3 nm                      | 14 pin Butterfly-<br>type 1 pinning<br>(type-2 available<br>on demand) |
| 2                                | 40 mW         | 80 mW                     | Single mode<br>DFB                             |   |                                      |                                |  |
| 3                                | 100 mW        | 200 mW                    |  |   |                                      |                                |  |
| 4                                | 400 mW        | 600 mW                    | Standard<br>Fabry-Perrot with<br>Bragg grating | Any wavelength<br>between 1420 and<br>1500 nm |                                      | < 2 nm                         |  |

Choose your product form factor : OPEN-FRAME or INTEGRATED

## **OPEN-FRAME VERSIONS:**



> Open-frame driver for CW, std and HP electronics boards for single mode diodes



### SHAPER



> Open-frame driver for «Shaper» electronic board and single mode diodes



|  |                          | LASER DRIVER VERSION :   |  |  |  |
|--|--------------------------|--|--|--|--|
|  | LASER DIODE<br>VERSION : | CW Driver<br>(for singlemode diodes<br>: « <u>CCS-CW</u> » is the open<br>driver and CCSI-CW is<br>the integrated version) | Pulse & CW Driver<br>(from 1 ns to CW : « <u>CCS</u> »<br>is the open driver and<br>«CCSI» is the integrated<br>version) | User design pulse shape<br>Driver<br>(From 0.5 ns to 8 µs : « <u>SHA-<br/>PER</u> » is the open driver and<br>Shaper-i is the integrated<br>version) |  |
|  | 1- 10 mW                 | 10 mW / No   | 10 mW / 20 mW  | No / 20 mW   |  |
| Output Power - CW / Pulse                  | 2- 40 mW                 | 40 mW / No   | 40 mW / 80 mW  | No / 80 mW   |  |
| (Typical values)                           | 3- 100 mW                | 100 mW / No  | 100 mW / 200 mW  | No / 200 mW  |  |
|  | 4- 400 mW                | 400 mW / No  | 400 mW / 600 mW  | No / 400 mW  |  |
| User design Pulse shape                    |                          | No   | No (On-Off only)   | Yes  |  |
| Laser diode T°                             |                          | 15 - 50 °C   |  |  |  |
| Pulse duration (Ext trigger)               |                          |  | 0.5 ns - CW  | 0.5 ns - 8 μs  |  |
| Pulse duration (Internal pulse generator)  |                          |  | 0.5 ns - 500 ns  |  |  |
| Typ rise/fall time ;<br>Min pulse duration | Any                      | CW only  | 3 (ns/A) ; 1.5 ns  | < 1ns/A ; 1.5 ns   |  |
| Internal rep rate adjustment               |                          |  | 1 Hz - 4 MHz<br>(250 MHz optional)   | 1 Hz - 20 MHz  |  |
| Temporal Jitter                            |                          |  | < 8 ps   | < 2 ns   |  |
| Adj. CW offset (pulse regime)              |                          |  | Optional   | No   |  |
| Interface/GUI/libraries                    |                          | USB - Windows 7/10 - DLLs - Hexa/Linux - Labview - Python  |  |  |  |

## **INTEGRATED VERSIONS :**

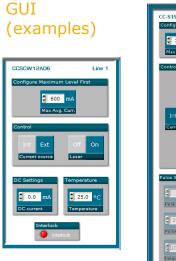


> Integrated version for CW, std and HP electronics boards



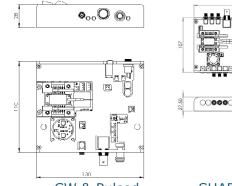
Integrated version for Shaper electronics board

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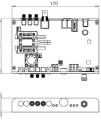




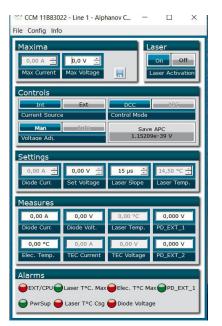
### Mechanical (examples) :



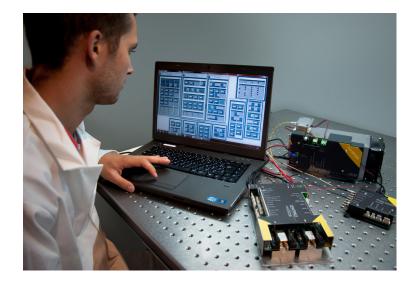
CW & Pulsed



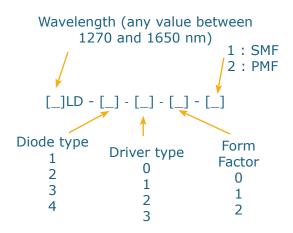
SHAPER



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### Ordering information :



Example : 1550LD-3-2-1-2 = 1550 nm 100 mW laser diode with a PM Panda fiber output, mounted on a «pulsed On/Off & CW» open frame driver

#### Classification :

| Name                 | 1550 LD :  |  |  |
|----------------------|--|--|--|
| Wavelength           | Choose any wavelength between 1270 and 1650 nm (models 1-3)<br>or between 1420 and 1500 nm (model 4)   |  |  |
| Diode type           | 1: 10 mW DFB Butterfly singlemode<br>2: 40 mW DFB Butterfly singlemode<br>3: 100 mW DFB singlemode<br>4: 400 mW Bragg singlemode                       |  |  |
| Driver Electronics : | 0: Laser diode alone<br>1: CCS-CW (open driver for CW only)<br>2: CCS-std (Pulse and CW Driver)<br>3: SHAPER (pulse only with user design pulse shape) |  |  |
| Form Factor          | 0: Laser diode alone<br>1: Open frame<br>2: Integrated   |  |  |
| SMF or PM            | 1: SM Fiber<br>2: PM Fiber   |  |  |

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Product Line Manager : sales.aerodiode@aerodiode.com +33 (0)6 27 69 41 52 www.aerodiode.com